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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,874	01/09/2004	Hans Joachim Halamoda	7863-80940	6117

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FITCH, EVEN, TABIN & FLANNERY  
P. O. BOX 65973  
WASHINGTON, DC 20035

EXAMINER
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NGUYEN, PHONG H

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/753,874

Applicant(s)

HALAMODA ET AL.

Examiner

Phong H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006 and 26 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotter (6,516,696 B2) in view of Liander (3,477,317).

Regarding claim 1, Cotter teaches a punching device capable of punching holes on a ceramic substrate comprising:

a receiving device, which has a substantially flat receiving face for a ceramic substrate (16), and in which a punched hole is embodied;

at least one die, which disposed above a punched hole and has a shaft 34 and an operative portion 28 that extends through a stripper opening 93', which is disposed in a stripper above the associated respective punched hole and extends to an outer face of the stripper facing the receiving face, and that has diameter that is less than the diameter of the shaft and greater than the diameter of an associated punched hole, and the operative portion, at its lower end, has a punching portion 26 whose diameter is somewhat less than the diameter of the punched hole;

a drive mechanism (14, 10), which is connected in driving fashion to the die in order to move linearly by a defined stroke and in the process to move the punching portion into the punched hole and out of it; and

a die guide device 40, through which the shaft extends and which guides the die at its shaft. See Figs. 2-4.

Cotter does not teach the stripper opening having a constant diameter. Liander teaches a stripper opening having a constant diameter. See Figs. 1 and 2. Therefore, it would have been obvious to one skilled in the art to incorporate a stripper opening having a constant diameter as taught by Liander to the punch device of Cotter for better guiding the operative portion since there is more contacting area between the stripper opening and the operative portion.

Regarding claims 2 and 11, the upper portion of the punching portion is unguided in the transverse direction in a ready state as shown in Fig. 2.

Regarding claims 3 and 12, the die guide device 40 having a bush 90 with a passage is best seen in Fig. 3.

Regarding claims 4 and 13, see Figs. 2 and 3.

Regarding claims 5, 14 and 15, as the die is moved downwardly a distance equal to the length of the punching portion 26, the punching portion makes a hole on the work piece 16. Therefore, the length of the punching portion is considered to be equal to the length of the stroke of the drive mechanism. See Fig. 2.

Regarding claims 6 and 16, it appears that the length of the operative portion is greater than the stroke of the drive mechanism. See Fig. 2-4.

Regarding claim 7, the punched hole and a slug conduit having a greater diameter than the punched holed are best seen in Fig. 2.

Regarding claim 8, the diameter of the shaft 34 is a multiple of the diameter of a segment of the operative portion which is the punching portion. See Fig. 2.

Regarding claim 9, Cotter teaches a punching device capable of punching holes on a ceramic substrate comprising: a receiving device, a die having a shaft 34, an operative portion having a first part 28 and a second punching part 26, a stripper opening 93', a drive mechanism (14, 10) and a die guide 40. See Figs. 2-4.

Regarding claims 10 and 19, see Fig. 2.

Regarding claims 17 and 20, see Fig. 2.

Regarding claim 18, Cotter teaches a tool for punching a sheet like substrate comprising:

- a lower tool part having a flat receiving face for a substrate 16;

- an upper tool part including a die having a shaft 34, a graduated operative portion including a first part 28 and a second punching part 26, a linear guide 40, a stripper bush 93' and a drive mechanism (14,10). See Figs. 2-4.

Cotter does not teach the stripper bush having a constant diameter. Liander teaches a stripper bush having a constant diameter. See Figs. 1 and 2. Therefore, it would have been obvious to one skilled in the art to incorporate a stripper bush having a constant diameter as taught by Liander to the punch device of Cotter for better guiding the operative portion since there is more contacting area between the stripper bush and the operative portion.

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***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phong H. Nguyen whose telephone number is 571-272-4510. The examiner can normally be reached on Mon-Fri.

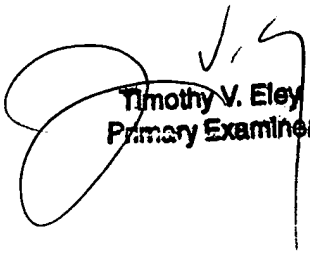
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PN:



April 6, 2006



Timothy V. Eley  
Primary Examiner